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In this edition, eighteen (18) manuscripts scale through the eye of the needle of the Editor-in Chief. The title of the papers in this edition are: effect of cold compress on the reduction of musculoskeletal pain, swelling and hemarthrosis among orthopaedic patients in Lautech Teaching Hospital, Ogbomoso, Oyo State, Nigeria; Awareness of Prostate Cancer Screening Among Male Civil Servants In Egor Local Government Area, Edo State, Nigeria; Knowledge, Perception And Utilization Of Maternal And Child Health Care Among Women In Ogbomosho, Oyo State, Nigeria; Assessment Of Knowledge And Utilization Of Electronic Medical Records Among Nurses In Secondary Health Care Facilities In Jigawa State, Nigeria; Effect Of Midwife Led Educational Intervention On Knowledge Of Anaemia And Risk Factors Among Pregnant Women Attending Ante-Natal In Selected Primary Health Care Facilities In Osun State, Nigeria; Knowledge Of Health Implications Of Rape And Associated Factors Among Male Undergraduates In Ahmadu Bello University Zaria, Nigeria; Effectiveness Of Family Caregivers Centered Nursing On Knowledge Of Pressure Ulcer Prevention In A Tertiary Health Facility In Kano, Nigeria; Knowledge And Practice Of Malaria Prevention Among Expectant Mothers In Selected Primary Health Centers In Mushin Local Government Area, Lagos State, Nigeria; Prevalence Of Sexual And Psychological Abuse In Almajiri System Of Education In Zaria Local Government Area, Kaduna State, Nigeria; Assessment Of Male Involvement In Maternity Care In Selected Health Facilities In Ado Ekiti, Ekiti State, Nigeria; Educational Intervention On Knowledge Of Prevention And Self-Care Practices Of Selected Lifestyle Diseases Among Civil Servants In State Secretariat Oke-Mosan, Abeokuta Ogun-State, Nigeria; Nursing In An Age Of Change In Nigeria; Knee Replacement Surgery: The Role Of The Nurse In Patient Safety In The Operating Room, The Nigerian Perspective; Choice Of Places Of Delivery Among Women Attending Ante Natal Clinic At Ngwo Health Centre; Systematic Review On Adolescent Girls' Knowledge And Practice Of Menstrual Hygiene In Nigeria; Knowledge And Prevention Of Hypertension Among Patients Attending Medical Outpatient Department Of Garki Hospital, Abuja, Federal Capital Territory, Nigeria And Socio-Cultural Factors Influencing Nutritional Status In Under-Five Children In Akure North Local Government, Ondo State, Nigeria.

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KNOWLEDGE AND PRACTICE OF MALARIA PREVENTION AMONG EXPECTANT MOTHERS IN SELECTED PRIMARY HEALTH CENTERS IN MUSHIN LOCAL GOVERNMENT AREA, LAGOS STATE, NIGERIA

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ABSTRACT

Malaria is a major cause of morbidity and mortality among expectant mothers and children (under five) in endemic areas of the world. Adequate knowledge and practice of malaria prevention are significant in curbing this burden. This study examined the knowledge and practice of malaria prevention among expectant mothers in selected Primary Health Centers in Mushin Local Government Area of Lagos State. A cross-sectional descriptive design was used in this study. Simple random sampling technique was used for the selection of 212 respondents. A structured pretested questionnaire was used to collect data. The reliability values of the instruments using Cronbach alpha were 0.84 and 0.82 for knowledge and practice of malaria prevention respectively. Data were analysed using SPSS version 26, presented in descriptive statistics of frequency counts, percentage tables, and mean scores. Inferential statistics of Chi-square was used to test the three hypotheses formulated at 0.05 level of significance. This study showed that majority of respondents are within the ages of 30 – 34 years (30.7%), Yoruba (58.8%), married (86.6%) and had 3 and above children alive (29.7%). Further findings showed that majority had tertiary education as the highest level of formal education (47.5%) with 4 to 6 months as current age of gestation (40.1%). This study showed that the respondents knowledge level of malaria is more than average (61.6%), knowledge level on malaria prevention is average (53.8%) and respondents practice level of malaria prevention was high (70.3%). The result showed that there is a relationship between the level of knowledge of malaria prevention and practices among expectant mothers $p < 0.05$, there is no significant relationship between knowledge of malaria prevention and parity among expectant mothers in selected PHCs in Mushin Local Government Area of Lagos State with p -value > 0.05 and lastly, there is no significant relationship between knowledge of malaria prevention and educational level among respondents with a p -value

> 0.05 . In conclusion, majority of the respondents had moderate knowledge of malaria, a little below average of malaria prevention and good practice. It is therefore recommended that expectant mothers should be educated on malaria prevention and the benefits of adhering to malaria preventive practices.

Keywords: Expectant mothers, Knowledge, Malaria prevention, Practice.

INTRODUCTION

Malaria is a mosquito-borne disease caused by a parasite, *Plasmodium falciparum* and constitute a major public health burden in Sub-Saharan Africa. It remains endemic in Nigeria, where the parasitic disease disproportionately affects children under five years and pregnant women. (Oladimeji et al., 2019). Malaria has been recorded as the major cause of maternal death, maternal anaemia and adverse pregnancy outcomes, including spontaneous abortion, preterm delivery, growth restriction, low birth weight, stillbirth, especially in high transmission areas (Bakken & Iversen, 2021). Various malaria prevention practices have been advocated by World Health Organization in a bid to curb morbidity and mortality caused by this disease burden. They include provision of Intermittent Preventive Treatment of Malaria in Pregnancy with Sulfadoxine-Pyrimethamine (IPTp-SP), vector control, prompt diagnosis, treatment of confirmed infection, amongst others (WHO, 2019). Two forms of vector control; insecticide-treated mosquito nets (ITN) and indoor residual

spraying (IRS), are effective in preventing malaria. Despite the wide control strategies, occurrence of malaria is on the increase with an estimated incidence rate of 37% globally and 42% in Africa (Mugoya, 2023). According to a study conducted among pregnant mothers in Sub-Saharan Africa, 41.3% were found positive to malaria parasites, with women of first trimester having the highest prevalence of 68.3% (Mugoya, 2023). In Nigeria, an overall malaria prevalence of 63.7% was recorded among pregnant women (Okoroiwu, 2023).

The relationship between knowledge and practice of malaria prevention among expectant mothers has been found to be very unsatisfactory, as it has been revealed that they hardly comply with malaria preventive strategies (Mavoungou et al, 2022). According to a study conducted by Okafor, Ezekude, Oluwole, & Onigbogi (2019), a little over half of the respondents (55.5%) had good knowledge of malaria in pregnancy. It further revealed that 41.9% of the respondents used insecticide spray and coils, 36.9% used intermittent preventive treatment, 24.1% used insecticide-treated nets and almost 20% used no form of prevention, reflecting a situation that places expectant mothers at risk of continued malaria transmission. In another study conducted to assess malaria prevention practices among pregnant mothers in Osogbo, Nigeria, 87.8% of the respondents had adequate knowledge about malaria in pregnancy. However, only 15.4% covered their windows and doors with nets, 34.4% used the insecticide treated nets (ITNs) and, 21.4% used intermittent preventive therapy (IPTp) (Tijani, 2017).

Over the years, misconceptions and inadequate practice of malaria prevention have resulted into adverse outcomes for both the mother and her fetus, thereby, posing a burden globally (Okafor et al., 2019). The severity and potential fatality of this disease burden calls for an urgent intervention, hence, the need to direct this research towards individuals at high risk of transmitting this disease. Considering the vulnerability of pregnant women to malaria, it became necessary to assess the level of

knowledge and practice of malaria prevention amongst expectant mothers, using selected Primary Health Centers in Mushin Local Government Area of Lagos State for the study.

Objective of the Study

The main objective of this study was to assess knowledge and practice of malaria prevention among expectant mothers in selected PHCs in Mushin Local Government Area of Lagos State.

Specific objectives of the study were to:

- 1) assess knowledge level of malaria and its prevention among respondents of the study;
- 2) determine malaria preventive practices among respondents of the study;

Research questions:

This study attempted to answer these two research questions:

- 1) What is the level of knowledge of malaria and its prevention among expectant mothers in selected PHCs in Mushin Local Government Area of Lagos State?
- 2) Do expectant mothers practice malaria prevention in selected PHCs in Mushin Local Government Area of Lagos State?

METHODOLOGY

Design: Descriptive cross-sectional research design was utilized.

Setting: The research was conducted in Kajola Primary Health Center, Ayantuga Primary Health Center and Palm Avenue Primary Health Center. Kajola Primary Health Center is located at 29 Ayonuga Street, Mushin, Lagos State. It currently has a staff strength of 3 doctors, 2 nurses, 2 Community Health Extension Workers (CHEWs), 3 pharmacists, 2 medical laboratory scientists, 3 health record officers. The health workers in this center use a system of Focused Antenatal Care (FANC). Their main meeting day is every Thursday.

Ayantuga Primary Health Center is located at 49 Ayantunga Street, Mushin, Lagos. It currently has a staff strength of 4 doctors, 7 nurses, 5 Community Health Extension Workers (CHEWs), 4 health attendants, 4 pharmacists, 4 medical laboratory scientists, 4 health record officers. The health workers in this center use a system of Focused Antenatal Care (FANC). Their main meeting days are every Thursdays and Fridays.

Palm Avenue Primary Health Center is located at 34 Palm Avenue, Papa Ajao, Mushin, Lagos State. It has a current staff strength of 5 doctors, 7 nurses, 5 Community Health Extension Workers (CHEWs), 3 pharmacists, 4 medical laboratory scientists and 9 health record officers. The health workers in this center use a system of Group Antenatal Care (GANC). Their main meeting days are every Thursdays and Fridays.

Population: The population for this study consisted of expectant mothers attending antenatal clinic in any of the three selected Primary Health Centres. The inclusion criteria comprised of pregnant women in their first trimester (week 1 - end of week 13), second trimester (week 14 – end of week 26) and third trimester (week 27- week 40) of pregnancy, who are willing to partake in this study, pregnant women that have booked in the selected Primary Health Centres and have attended Focused Antenatal Care (FANC) twice in the selected Primary Health Centres. Exclusion criteria include pregnant women who are not willing to participate in the study, pregnant women with medical conditions like hypertension in pregnancy, diabetes, HIV and teenage pregnancy.

Sample Size Determination: The sample size was calculated using Cochran's formula with an estimated proportion of 14.7% gotten from previous studies at 95% confidence precision of 5% and a non-response rate of 10%.

Cochran's formula was used to determine the sample size and yielded $N = 192.68$. Also, 10% was included to account for attrition rate; 10% of $192.68 = 19.27$. Thus, $Total = 192.68 + 19.27 = 211.9$ which is approximately 212.

Therefore, for this study, a sample size of 212 respondents was used.

Sampling technique: Simple random technique was used to select 212 respondents.

Instrument: The study made use of self-structured questionnaire developed by the researchers based on what was seen in literature on malaria prevention. The instrument used for data collection comprised of four sections; Section A: elicited responses on socio-demographic characteristics of respondents such as age, marital status, age of gestation, marital status, educational qualifications among others. Section B: elicited responses on knowledge of malaria and comprised of 12 close ended items. Section C: elicited responses on knowledge of malaria prevention which comprised of 11 close ended items, and section D elicited responses on practice of malaria prevention with 11 close ended items on a 4-point scale; always, sometimes, seldom and never. The questionnaire was validated in terms of clarity, comprehensiveness to suit the objectives of the study, before distributing them to the respondents.

The questionnaire was pretested on 21 expectant mothers in Ayobo Primary Health Centre. The data collected was used to estimate the reliability of the instrument using Cronbach alpha (R) in order to bring out the internal consistency and construct validity of the instrument. Cronbach alpha values were found to be 0.84 and 0.82 for knowledge and practice respectively. The researchers administered the questionnaires from 10th August to 25th August, 2022. The completed questionnaires were retrieved same day, then coded and analysed. Statistical Package for the Social Science (SPSS) Version 26 was used for the analysis.

Descriptive statistics such as frequency counts, percentage tables, and mean scores were used to analyse sociodemographic characteristics of respondents and research questions. On the scoring of knowledge items regarding malaria, the correct response was awarded 1 (one) while the incorrect response was awarded 0 (zero). The maximum obtainable score was 12 for knowledge of malaria; scores 0-5 was

categorized as low knowledge; 6-9 as moderate knowledge and 10-12 as good knowledge. For knowledge of malaria prevention, the maximum obtainable score was 11; scores 0-5 was categorized as low knowledge; 6-8 as moderate knowledge and 9-11 as good knowledge. For the practice score, the most correct practice score was awarded 3 for 'Always', 2 for 'Sometimes', 1 for 'Seldom' and, zero for 'Never' for every positive item. Whereas, it is the reverse for every negative item. The maximum obtainable score was 33. Score 0-19 was classified as poor practice and 20-33 as good practice. Inferential statistics of Chi-Square (X^2) was used to test the three hypotheses generated at 0.05 level of significance.

Method of Data Collection: Data was collected from pregnant women who were available and willing to participate in the study.

Data Analysis: The data was analysed using tables, frequencies, percentages and inferential statistics.

Ethical approval: for the study was obtained from Lagos University Teaching Hospital Health Research Ethics Committee with Reference No: ADM/DSCST/HREC/APP/4675. Letter of introduction was also collected from the Department of Nursing Science, Faculty of

Clinical Sciences, College of Medicine, University of Lagos and, presented to the Medical Officers of Health in the selected primary health centers. Informed consent was obtained while anonymity and confidentiality were maintained both during and after collection of data. Respondents were assured that they could withdraw from the study at any stage, and that such withdrawal or non-participation would not be prejudicial.

RESULTS

A total number of 212 questionnaires were distributed to the respondents by the researchers. A total of 202 questionnaires were adequately filled and returned. This gave a response rate of 95.3%.

Table 1 shows the demographic characteristics of respondents. The mean age of respondents was 30.52 ± 5.05 , with majority 62 (30.7%) of the respondents between the ages of 30-34 years. 119 respondents (58.7%) were from the Yoruba ethnic group; 175 respondents (86.6%) were married and had 3 and above children alive (29.7%). Further findings showed that majority had tertiary education as the highest level of formal education (47.5%) with 4 to 6 months as current age of gestation (40.1%).

Table 1: Socio-demographic Data of Respondents (n=202)

Variable	Frequency	Percentage
Age		
20-24	28	13.9
25-29	58	28.7
30-34	62	30.7
35-39	54	26.7
Mean	30.52±5.05	
Total	202	100
Ethnic group		
Igbo	60	29.8
Yoruba	119	58.8
Hausa	13	6.4
Others	10	5.0
Total	202	100
Marital status		
Married	175	86.6
Single	15	7.4
Widowed	2	1.0
Divorced	4	2.0
Separated	6	3.0
Total	202	100
Number of children alive		
None	25	12.4
One	59	29.2
Two	58	28.7
Three and above	60	29.7
Total	202	100
Religion		
Christianity	118	58.4
Islam	83	41.1
Others	1	0.5
Total	202	100
Highest level of Formal Education		
None	7	3.5
Primary	16	7.9
Secondary	83	41.1
Tertiary	96	47.5
Total	202	100
Age of Gestation		
1-3 months	44	21.8
4-6 months	81	40.1
7-9 months	77	38.1
Total	202	100

Table 2 shows that 186 respondents (92.1%) correctly identified that malaria is a disease transmitted by bites from infected mosquitoes. 136 respondents (67.3%) correctly identified that stagnant water encourages the breeding of

mosquitoes. 169 respondents (83.7%) correctly responded fever, headache and joint pain as symptoms of malaria. This study shows that the respondents knowledge level of malaria is more than average (61.6%)

Table 2: Respondents’ Responses on Knowledge of Malaria (n=202)

Statement	Correct	Incorrect	Total
Definition of malaria	186(92.1%)	16(7.9%)	202(100.0%)
Causes of malaria	94(46.5%)	108(53.5%)	202(100.0%)
Resting places for mosquitoes	92(45.5%)	110(54.5%)	202(100.0%)
Mosquito breeding sites	136(67.3%)	66(32.7%)	202(100.0%)
Signs of malaria	169(83.7%)	33(16.3%)	202(100.0%)
Time of the day mosquitoes bite mostly	109(54.0%)	93(46.0%)	202(100.0%)
Shortage of blood in relation to malaria	107(53.0%)	95(47.0%)	202(100.0%)
Knowledge of malaria	100(49.5%)	102(50.5%)	202(100.0%)
Malaria in pregnancy is treatable	182(90.1%)	20(9.9%)	202(100.0%)
Treatment of malaria	172(85.1%)	30(14.9%)	202(100.0%)
Effect of malaria	70(34.7%)	132(65.3%)	202(100.0%)
Healthy practices during malaria treatment	76(37.6%)	126(62.4%)	202(100.0%)

Table 3 shows that majority of the respondents, 171 (84.7%) correctly identified that malaria in pregnancy can be prevented. 132 respondents (65.3%) correctly identified that sleeping under insecticide treated net can prevent malaria in pregnancy. 77 respondents (38.1%)

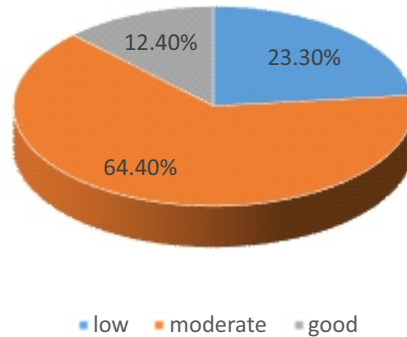
correctly identified that covering food properly is not a method for preventing malaria in pregnancy. Findings reveals that respondents' knowledge level on malaria prevention is average (53.8%)

Table 3: Respondents Responses on Knowledge of Malaria Prevention (n=202)

Statement	Correct	Incorrect	Total
Can malaria in pregnancy be prevented?	171(84.7%)	31(15.3%)	202(100.0%)
Which of the following cannot be used to prevent malaria?	71(35.1%)	131(64.9%)	202(100.0%)
How can malaria in pregnancy be prevented?	132(65.3%)	70(34.7%)	202(100.0%)
How else can malaria in pregnancy be prevented?	94(46.5%)	108(53.5%)	202(100.0%)
Which of these is not used to prevent malaria in the home?	77(38.1%)	125(61.9%)	202(100.0%)
Which of these is not used to prevent malaria in the environment?	111(55.0%)	91(45.0%)	202(100.0%)
Which of these is not good in the use of insecticide treated nets?	82(40.6%)	120(59.4%)	202(100.0%)
What is the advantage of sleeping under mosquito net?	147(72.8%)	55(27.2%)	202(100.0%)
How frequent should a pregnant woman go for malaria test?	111(55.0%)	91(45.0%)	202(100.0%)
How best can malaria be prevented?	116(57.4%)	86(42.6%)	202(100.0%)
Which of the following is true about the care of mosquito net?	84(41.6%)	118(58.4%)	202(100.0%)
53.8%			

Figure 2 shows that majority of the respondents, 130 (64.4%) have moderate knowledge of malaria, 47 (23.3%) have low

knowledge and 25 (12.4%) have good knowledge.



Summary of Respondents Knowledge of Malaria

Table 4: Responses on Practice of Malaria Prevention (n=202)

Preventive Measures	Always	Sometimes	Seldom	Never
I go to the hospital regularly for malaria test.	105(52.0%)	69(34.2%)	16(7.9%)	12(5.9%)
I take herbs to prevent malaria whenever I am pregnant.	42(20.8%)	73(36.1%)	8(4.0%)	79(39.1%)
I use preventive malaria drugs recommended by the doctor.	143(70.8%)	47(23.3%)	4(2.0%)	8(4.0%)
Cutting bushes around my house is unnecessary.	80(39.6%)	27(13.4%)	13(6.4%)	82(40.6%)
I sleep under insecticide treated bed net.	126(62.4%)	47(23.3%)	8(4.0%)	21(10.4%)
Wearing long sleeve clothes to sleep at night is unnecessary.	51(25.2%)	71(35.1%)	19(9.4%)	61(30.2%)
The windows in my house have no net.	41(20.3%)	25(12.4%)	12(5.9%)	124(61.4%)
The doors in my home are left opened for cross ventilation.	54(26.7%)	57(28.2%)	6(3.0%)	85(42.1%)
I dispose household wastes properly.	157(77.7%)	19(9.4%)	10(5.0%)	16(7.9%)
I spray insecticide regularly in my room.	122(60.4%)	56(27.7%)	12(5.9%)	12(5.9%)
Using mosquito repellent like odomus on my body is harmful.	70(34.7%)	39(19.3%)	21(10.4%)	72(35.6%)
	49.1%	21.3%		

Table 4 shows that 105 respondents (52.0%) reported that they always go to the hospital regularly for malaria test. 79 respondents (39.1%) reported that they never take herbs to prevent malaria whenever they are pregnant. 143 respondents (70.8%) reported that they always use preventive malaria drugs

recommended by the doctors. 126 respondents (62.4%) reported that they always sleep under an insecticide treated net. 124 (61.4%) respondents reported ownership of net in their houses. Study reveals that respondents practice level of malaria prevention is very high (70.3%)

Table 5: Relationship between Knowledge of Malaria Prevention and Practices n=202

		Practice		Total	X ²	Df	p-value
		Poor	Good				
Knowledge on prevention	Low	24	23	47	12.506	2	0.002
	Moderate	39	91	130			
	Good	3	22	25			
Total		66	136	202			

Table 5 shows that there is a significant relationship between the level of knowledge of

malaria prevention and practices among expectant mothers p<0.05.

Table 6: Relationship between knowledge of malaria prevention and parity n=202

		Knowledge on prevention			Total	X ²	Df	p-value
		Low	Moderate	Good				
Parity	None	5	19	1	25	8.973	6	0.175
	One	12	43	4	59			
	Two	14	32	12	58			
	Three and above	16	36	8	60			
Total		47	130	25	202			

Table 6: shows that there is no significant relationship between knowledge of malaria prevention and parity among expectant

mothers in selected PHCs in Mushin Local Government Area of Lagos State with p-value >0.05

DISCUSSION

This study assessed knowledge and practice of malaria prevention among expectant mothers in selected PHCs in Mushin Local Government Area of Lagos State. This study showed that majority of respondents were within the ages of 30 – 34 years, Yoruba, married and had 3 and above children alive. Further findings showed that majority had tertiary education as the highest level of formal education with 4 to 6 months as current age of gestation.

This study showed that the respondents knowledge level of malaria was more than average. This result is in agreement with Ayanore *et al.*, (2019) whose respondents in Ghana had good knowledge of malaria (62%) However, findings from this study is in contrast with that of Okafor *et al.*, (2019) whose respondents in Lagos, Nigeria, had poor knowledge and also Georgian, Matthew and Nte, (2017) reported poor knowledge of malaria among expectant mothers in Ebonyi State, Nigeria.

Findings revealed that respondents' knowledge level on malaria prevention was average. This result is in word and with Awoyesuku, Ohaka, & Ngeri, (2020) who noted that their respondents in Port Harcourt, had good knowledge of malaria prevention (61%). However, the findings from this study contrast with Yaya *et al.*, (2017), who observed poor knowledge level on malaria prevention among women in Burkina Faso. This study does not align with Tijani, (2017), who observed poor knowledge level of malaria prevention among pregnant mothers in Osogbo, Nigeria.

Study revealed that respondents practice level of malaria prevention was high. This finding is in consonance with Shehu, Mbakwe, Panti, and Chapa (2018), who reported an overall good practice level among pregnant women in Sokoto State, Nigeria, This study also agrees with the findings of Ameyaw, Adde, Dare and Yaya, (2020), who reported high ITN utilization among rural pregnant women. However, the result of this study is in contrast with Tijani, (2017) who noted low practice of

malaria prevention among pregnant mothers in three hospitals in Osogbo, Nigeria. Similarly, Georgian *et al.*, (2017) revealed poor malaria prevention practice level among women going for antenatal care in Ebonyi State, Nigeria. This study is similar to Muhammad, Mukhtar, Rejoice and Hafsat (2021), who revealed better level of practice among pregnant women in Pantami PHC in Gombe State.

The result of this study noted there was a significant relationship between the level of knowledge of malaria prevention and practices among expectant mothers $p < 0.05$. Therefore, the null hypothesis was rejected; implying that expectant mothers with high knowledge of malaria practiced malaria prevention effectively. This hypothesis is not in agreement with the study by Ayanore *et al.* (2019), which reported that the level of knowledge acquired by expectant mothers did not translate into their practice of malaria prevention.

This study showed that there was no significant relationship between knowledge of malaria prevention and parity among expectant mothers in selected PHCs in Mushin Local Government Area of Lagos State with p -value > 0.05 . Therefore, the null hypothesis was not rejected; indicating that the number of children acquired by expectant mothers does not necessarily have an effect on their knowledge of malaria prevention. This result is consistent with the findings of a study conducted among women of reproductive age in Port-Harcourt, Nigeria. They reported no statistical difference between knowledge of malaria prevention and parity (Awoyesuku *et al.*, 2020). This finding is contrary to a study conducted among pregnant women and non-pregnant mothers in Ibadan, Nigeria. They reported that parity of expectant mothers greatly influenced their knowledge of malaria prevention (Oladimeji *et al.*, 2019). This finding is also not in conformity with the study conducted among expectant mothers in Ghana, which revealed significant association between parity and practice of malaria prevention (Ayanore *et al.*, 2019). The reason for this disparity may be as a result of health education organized for all expectant

mothers attending antenatal care, irrespective of their parity.

Our study observed that there is no significant relationship between knowledge of malaria prevention and educational level among respondents with a p-value > 0.05. Therefore, the null hypothesis was not rejected. This indicates that expectant mothers with a higher level of education do not necessarily have adequate knowledge of malaria prevention. This result is consistent with the findings of a study conducted among women of reproductive age in Port-Harcourt, Nigeria. They reported no significant association between knowledge of malaria prevention and educational level (Awoyesuku et al., 2020). This finding is contrary to a study conducted among women in Oshodi-Isolo Local Government Area, Lagos State. They reported that expectant mothers of higher educational level have higher knowledge of malaria prevention than those of lower educational level (Okafor et al., 2019). The reason for this disparity may be as a result of health education organized for all expectant mothers, attending antenatal care, irrespective of their educational level, on malaria prevention.

IMPLICATION TO NURSING

This study showed that the majority of respondents had moderate knowledge about malaria, a little below average knowledge about its prevention and good practice. The implication of these results to nursing cannot be over emphasized. Nurses have a major role to play in teaching expectant mothers on knowledge about prevention of malaria which will enhance their adherence to malaria preventive measures. The use of insecticide treated nets and provision of intermittent preventive treatment of malaria in pregnancy with sulfadoxine-pyrimethamine and vector control must be emphasized during antenatal visits. Nurses should also liaise with other stakeholders including the Ministry of Health in developing guidelines and framework for the protection of vulnerable groups to curb the disease burden and its lethal effects.

LIMITATION OF STUDY

This study was only conducted in the mainland of Lagos State; therefore, the results may not be generalized.

CONCLUSION AND RECOMMENDATIONS

The findings of this study revealed that majority of the respondents had moderate knowledge on malaria and its prevention and good practice of preventive measures. Though this indicates good results, improvement is needed on the knowledge. A positive relationship was established between knowledge and practice.

Improving the knowledge of the population would have a significant influence on their practice of malaria prevention. Nurses should continue to ensure that mothers are educated on the dangers of malaria in pregnancy and how best it can be prevented.

Conflicts of Interest

There are no conflicts of interest

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